FINAL

ENVIRONMENTAL ASSESSMENT

INSTALLATION OF A CENTRAL OIL WATER SEPARATOR AND THE CLOSURE AND DEMOLITION OF THE EXISTING FACILITY ON REDSTONE ARSENAL, ALABAMA

DEIS# 1117-02

U.S. ARMY GARRISON
REDSTONE

MAY 2003

Finding of No Significant Impact
for the
Installation of a Central Oil Water Separator
and the
Closure and Demolition of the Existing Facility
on
Redstone Arsenal, Alabama

The US Army Garrison - Redstone proposes to construct, install and operate a new central oil water separator (OWS) on Redstone Arsenal. An Environmental Assessment for this project has been completed.

The proposed action consists of installing and operating a new central OWS. The OWS will consist of two 8,000 gallon underground storage tanks, a 2,000 gallon underground separator unit, and two 10,000 gallon above ground storage tanks along with associated piping. All the tanks will be equipped with the latest leak detection and overflow protection systems. The central OWS will be used to separate oil and water mixtures. Oil will be stored in the tanks and water will be released into the sanitary sewer. The facility will be operated by the Installation Services Support Contractor. The facility will serve as an accumulation point for all used oil and oil-water mixtures collected from various points on Redstone Arsenal, including 29 separate OWS units, the Auto Craft Shop and the Motor Pool. The material will be brought to the central OWS by pump truck.

Oil water mixtures are and will continue to be sampled and analyzed for lead and VOC's before being put into the central OWS. After the oil is separated, the resultant oil mixture is again sampled and analyzed to verify that it meets the Alabama Department of Environmental Management (ADEM) standards for Used Oil Burned for Energy Recovery (UOBER). Once the oil mixture is verified to meet ADEM standards for UOBER, it is sold for reuse/recycling purposes. In the unlikely event that the oil mixture does not meet ADEM standards, it would be disposed of in accordance with existing environmental regulations.

Once the new OWS is operational, the existing facility will be cleaned to Resource Conservation Recovery Act (RCRA) standards and will be demolished. The demolition debris will be disposed of in the Redstone Construction and Demolition Landfill unless found to be contaminated. If found to be contaminated it will be disposed of according to RCRA standards. The concrete will be stockpiled until it can be crushed for reuse on the installation. We will investigate the site and any contamination will be cleaned up according to RCRA standards. The most likely outcome will be removal of some soil contaminated with oils. The soil will be disposed of according to RCRA standards.

We considered two alternatives to the proposed project. We considered the option of taking no action, however, the existing central OWS facility is known to have leaked in the past and cleanup of the site is necessary under the RCRA. We considered modification of the existing facility, but the site has already been designated a RCRA cleanup site (RSA 30 and 31). The cleanup of the existing facility and RCRA regulations prohibit continuing use or modification of the existing site. For this reason, the environmental assessment also addresses the demolition and cleanup of the existing central OWS unit.

We have evaluated the impacts of the proposed project on the environmental, cultural and natural resources in the project areas. Our analysis shows construction of a new central OWS in an existing gravel parking area will not impact significant cultural or natural resources. We have also determined that the operation of this new facility will end potential continuing leaks occurring at the existing facility and therefore improve the environment. We also found that the demolition of the existing facility and cleanup of the existing contamination from past leaks will reduce the chance that oils will be spread in the environment and possibly be introduced into ground and surface water. We have concluded that the project is overall beneficial to the environment.

The Directorate of Environment and Safety has prepared an environmental assessment that addresses the construction, installation and operation of a new central OWS and the demolition and cleanup of the existing central OWS on Redstone Arsenal. Based on our evaluation in the Environmental Assessment, we find that there are no significant environmental impacts associated with the proposed actions and that an Environmental Impact Statement is not required.

UNITED STATES ARMY GARRISON
REDSTONE

FINDING OF NO SIGNIFICANT IMPACT (FNSI)
FOR
INSTALLATION OF A CENTRAL OIL WATER SEPARATOR
AND THE
CLOSURE AND DEMOLITION OF THE EXISTING FACILITY
ON
REDSTONE ARSENAL, ALABAMA

PROPONENT OF THE ACTION:

Date 20 MAY 03

CRAIG NORTHRIDGE
Chief, Installation Compliance Division
Directorate of Environment and Safety

REVIEWED BY:

Date 5/20/03

DANIEL J. DUNN
Chief, Natural Resources Division
Directorate of Environment and Safety

PREPARED BY:

Date 20 MAY 03

for MIKE WASSELL
Team Leader
Installation Compliance Division

REVIEWED BY:

Date 5-21-03

CAROLENE WU
NEPA Coordinator
Directorate of Environment and Safety

TECHNICAL APPROVAL BY:

Date 21 May 2003

TERRY W. HAZLE
Director
Directorate of Environment and Safety

FINAL APPROVAL BY:

Date

ROBERT I. DEVLIN
Colonel, OD
Garrison Commander

ENVIRONMENTAL ASSESSMENT FOR THE INSTALLATION OF A NEW CENTRAL OIL WATER SEPARATOR AND THE CLOSURE AND DEMOLITION OF THE EXISTING FACILITY AT REDSTONE ARSENAL, ALABAMA

Introduction

The National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), Department of Defense (DoD) Directive 6050.1, *Environmental Effects in the United States of Department of Defense Actions* (U.S. Department of Defense, 1979), and Army Regulation (AR) 200-2, *Environmental Effects of Army Actions* (U.S. Department of the Army, 1988), which implements these laws and regulations, direct DoD and Army officials to consider environmental consequences when authorizing or approving federal actions. This Environmental Assessment (EA) analyzes the environmental consequences of the Construction and Operation of this project.

Redstone Arsenal (RSA) is located in Madison County, southwest and adjacent to the City of Huntsville, Alabama (Figure 1-1). The Arsenal occupies approximately 38,000 acres of land and employs approximately 21,500 government and contractor personnel.

Description of Project

This project tasks the Installation Services Support Contractor to design, site, and install a new central oil water separator (OWS). We would also close and demolish the existing central OWS facility located at building 5427. In the event that RCRA investigation determines that the site does not meet the RCRA threshold actions standards, the site would be remediated.

The OWS will be installed to the west of building S-5492. The OWS will consist of two (2) 8,000 gallon underground storage tanks, a 2,000 gallon underground OWS unit, and two (2) 10,000 gallon above ground storage tanks along with all of the associated piping, pumps and electronic controls. All of the tanks will be equipped with the latest leak detection and overflow protection. The purpose of the OWS is to separate oil and water mixtures. The oil will be stored in the tanks and the water drained into the sanitary sewer system.

When the proposed new Central OWS is brought online, the existing facility will be cleaned, triple rinsed and demolished. The surrounding area will then be remediated in accordance with the Redstone Arsenal Part B Storage Permit. Prior to razing of the building all usable equipment will be removed for reuse on Redstone Arsenal. The building debris from the site will be recycled when possible or disposed in the Redstone Construction and Demolition Landfill if it cannot be recycled. The concrete foundation will be stockpiled at the Construction and Demolition Landfill until it can be crushed for reuse.

Upon completion of the building demolition, we will investigate the site to determine the extent of any soil contamination. A soil removal action to meet RCRA threshold action concentration requirements will probably follow. The extent of the soil removal will be based on RCRA UST cleanup standards. The excavated material will be disposed of in accordance with RCRA requirements. Following remediation, the area will be leveled, graded and vegetation established.

MADISON COUNTY

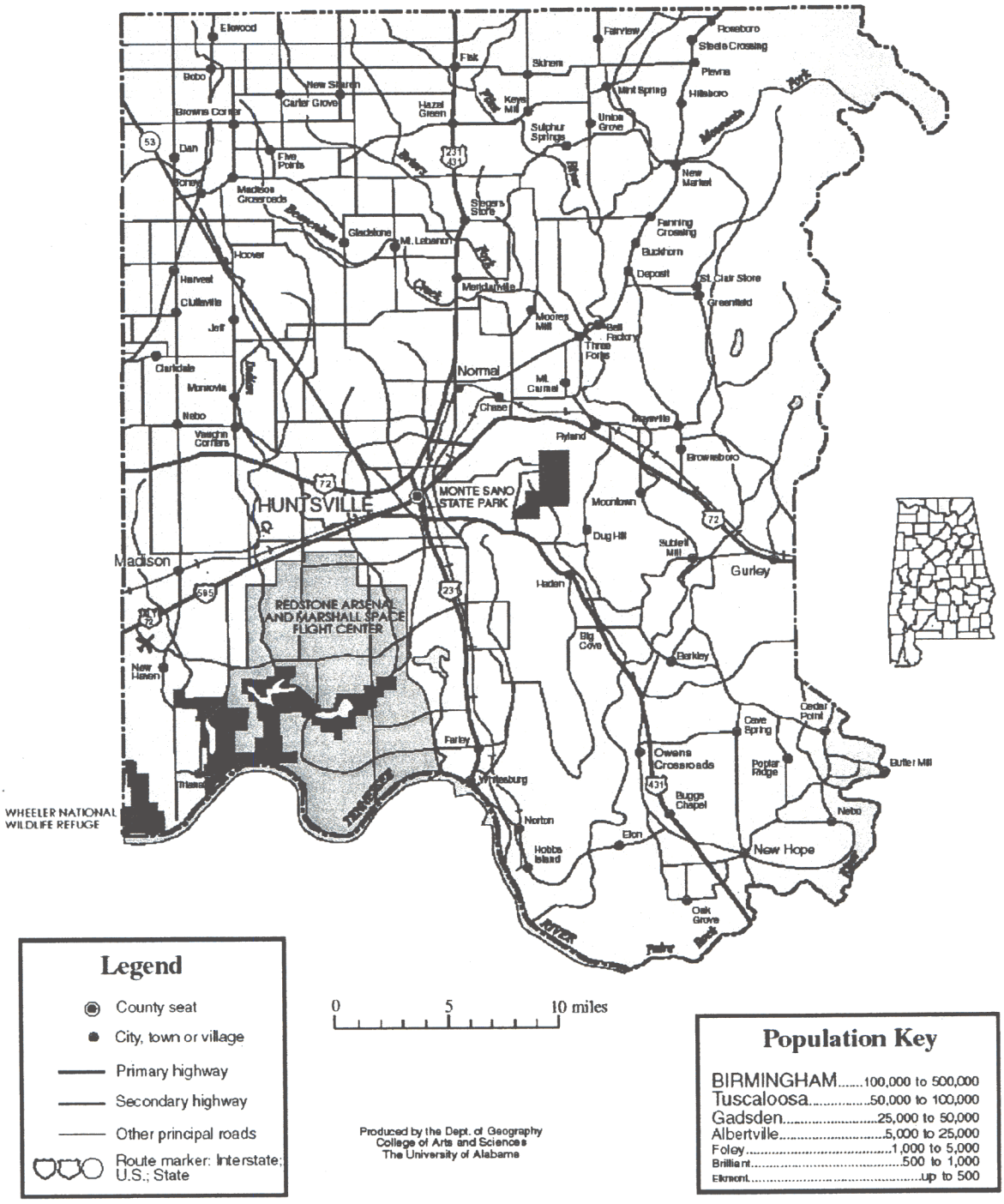

Figure 1-1. Redstone Arsenal Vicinity Map

Location

The new OWS will be located at the Roads and Grounds Equipment Storage Yard to the west of building 5492. The proposed site is a level parking area that is not paved, it is bare ground. The existing central OWS facility located at building 5427.

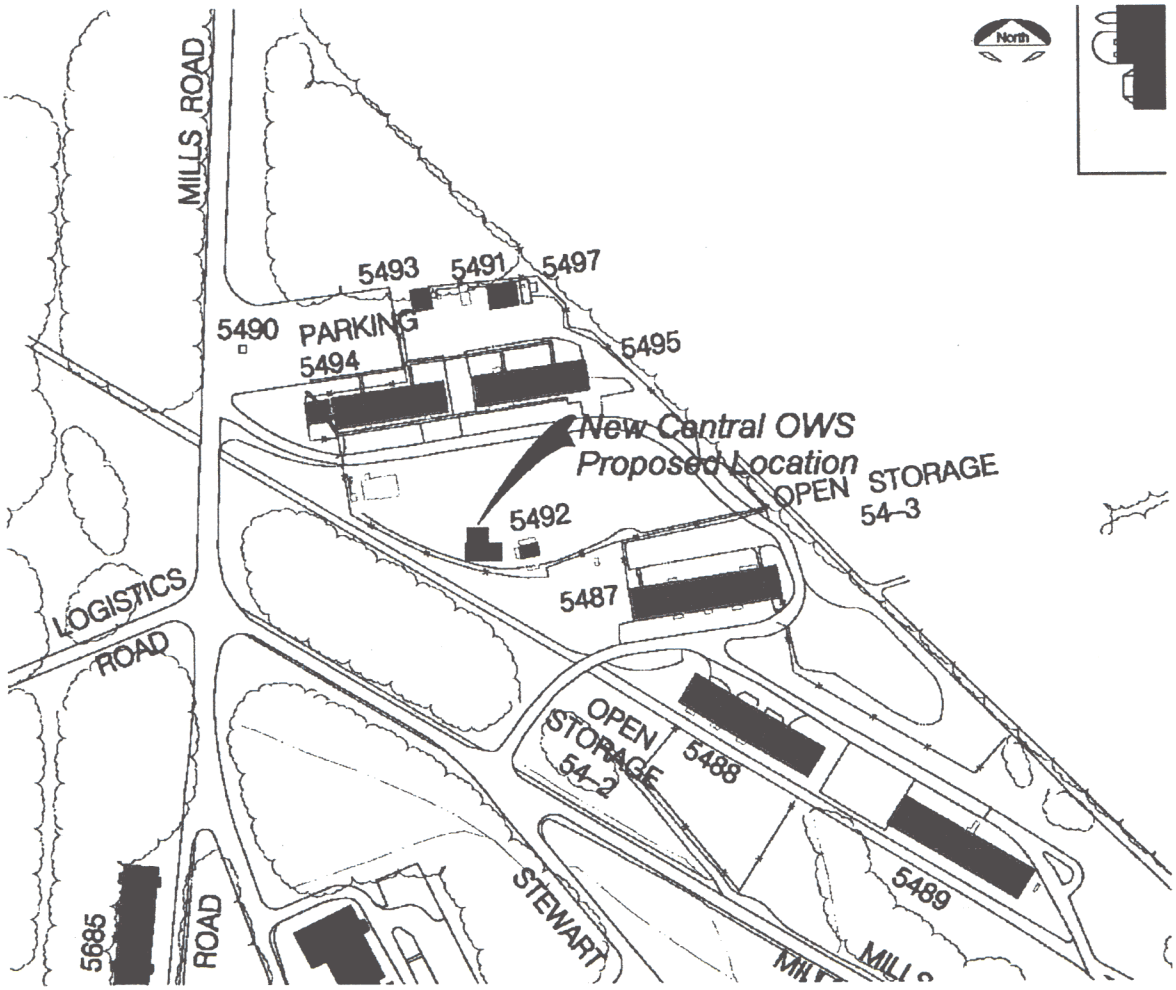

Figure 1-2. Proposed Action Site Location

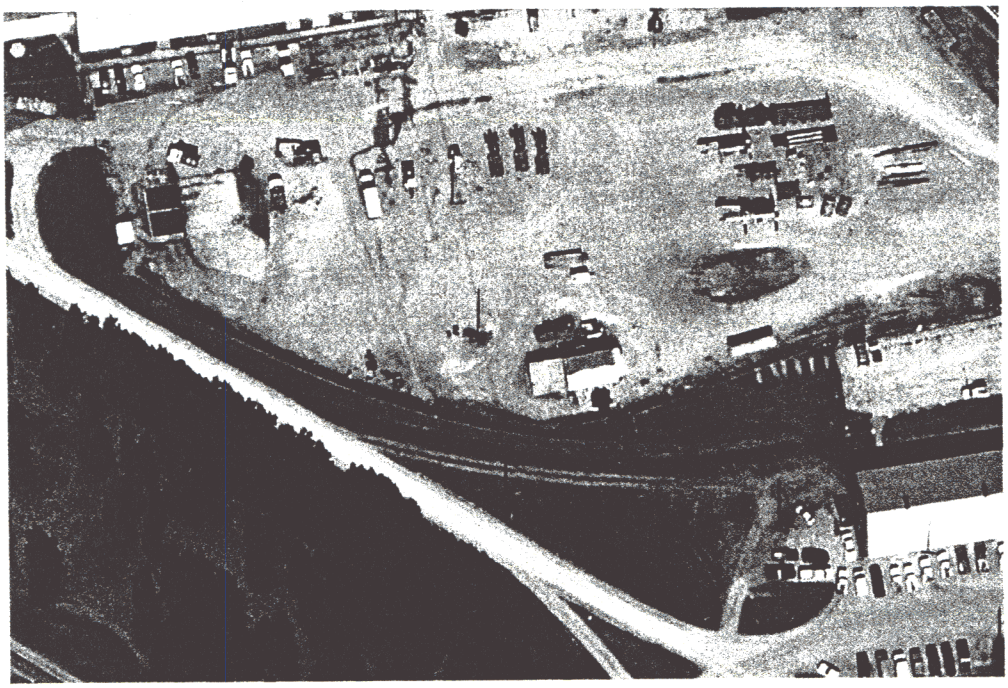

Figure 1-3. Aerial View of Proposed Action Site

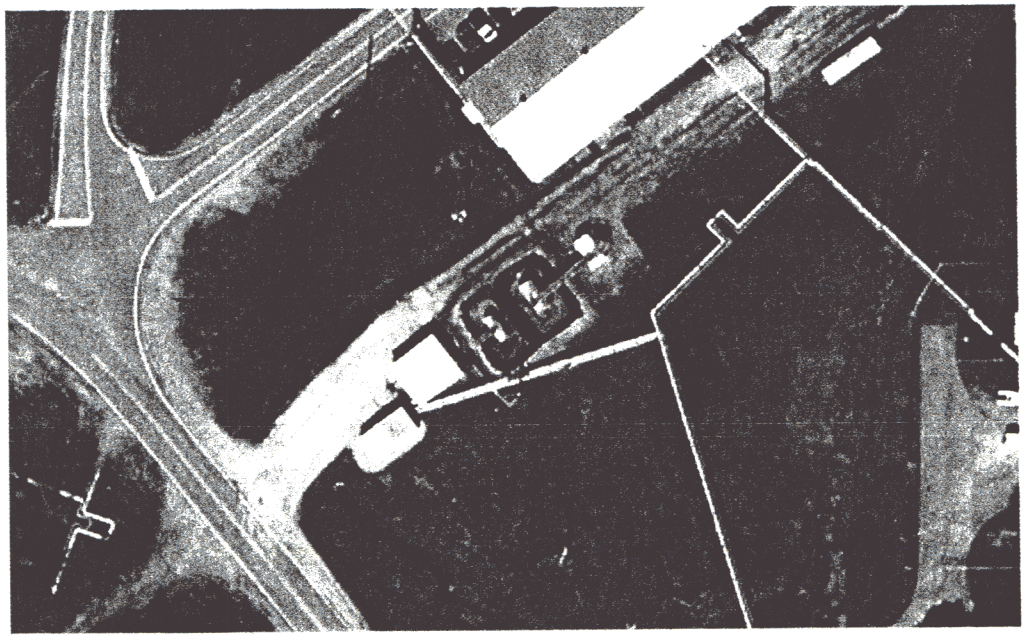

Figure 1-4. Aerial View of Current Oil Water Separator

Purpose and Need for the Action

The purpose of the Central OWS is to separate oil and water mixtures, and provide a central accumulation point for all used oil and oil water mixtures collected all over Redstone Arsenal. The oil is stored in the tanks and the water is discharged to the sanitary sewer system.

Installation Services Support Contractor runs the Central OWS facility. They have a pump truck, which is used to collect used oil and oil water mixtures. The majority of the oil water mixtures come from the 29 satellite OWS located throughout Redstone Arsenal. Used oil mixtures generated at the Auto Craft Hobby Shop Building 3617 and the Motor Pool Area buildings 3338, 3636, and 3670 are brought to the Central OWS. Miscellaneous sources from the Test Areas and various 55-gallon drums also are collected for accumulation at the Central OWS.

The petroleum mixtures are sampled and analyzed by the Chemistry Laboratory before they are put into the Central OWS for lead and VOCs. After the oil and water is separated, the oil mixture is again sampled and analyzed by the Chemistry Laboratory according to the ADEM Specifications for Used Oil Burned for Energy Recovery. The following are the ADEM specifications for Used Oil Burned for Energy Recovery:

1. Moisture content (water), the water content must be less that 10 % for recycling
2. Metals
    a. Arsenic 5-ppm maximum
    b. Cadmium 2-ppm maximum
    c. Chromium 10-ppm maximum
    d. Lead 100-ppm maximum
3. Flash point 100 degrees F minimum
4. VOCs including halogens, total halogens less than 1000 ppm
5. PCBs less that 50 ppm

The used oil is then sold for reuse/recycling purposes.

Affected Environment
Environmental Consequences
Mitigation Measures

Wastewater: Presently wastewater is discharged from the Central OWS at building 5427 into the sanitary sewer. When the new Central OWS is put into operation, waters will be likewise discharged into the sanitary sewer. The oil water mixture is analyzed before going to the OWS so no release of hazardous waste will occur to the sanitary sewer. Wastewater will not be adversely affected by this project. Chemical analysis on the oil water mixtures before they are put into the OWS will control the environmental affects on wastewater.

Storm Water Runoff: During construction the possibility of increased sedimentation exists due to disturbance of soil. To control the runoff the contractor will construct silt barriers to reduce the particulate matter leaving the site. A National Pollutant Discharge Elimination System (NPDES) construction permit is not required because we will not be disturbing more than 5 acres of land. Secondary containment of all tanks and piping will be provided to reduce the risk of contamination due to leakage or spillage. All of the new equipment will be equipped with state of the art leak detection equipment and alarms. This is an improvement to the existing OWS. The potential to create stormwater runoff will be decreased by the use of secondary containment and modern leak alarms on all aboveground storage tanks and underground storage tanks.

Air Quality: The new Central OWS will require an air permit for construction and operation. Fugitive dust and combustion emissions will be generated during the construction activities, and VOC emissions will be generated during operation. Any petroleum storage tank greater than or equal to 10,000 gallons capacity is the applicability threshold for New Source Performance Standards (NSPS) Kb (federal) applicability. Any tank under this program must be considered a significant source for Title V and requires a construction permit. A Title V Permit update will be required in accordance with 40 CFR Part 60 - Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels). This applies to storage tanks $\geq$ 10,000 gallons. The requirements include documentation of construction, contents, and throughput. Construction-related emissions of fugitive dust and exhaust products would depend on the amount of earthwork done and the construction mobilization schedule. Fugitive dust from ground-disturbing activities can be reduced up to 50 percent by regular site-watering practices as necessary. The storage tank emissions are subject to National Ambient Air Quality Standards (NAAQS), but are not expected to exceed threshold levels.

Solid Waste: The oil recovered from the operation of the OWS is not a solid waste, because the water will be removed and care is taken not to contaminate the oil. The used oil generated from this operation is a marketable product either to a fuel-blending contractor or for use in energy production.

Hazardous Waste: The oil recovered from the operation of the OWS is not a hazardous waste, because care is taken not to contaminate the oil. The production of hazardous waste will be eliminated by the chemical analysis on the oil water mixtures before they are put into the OWS and the knowledge of the processes used where the oil has been collected.

PCB: No PCBs will be processed through the OWS. PCBs will be controlled by the knowledge of the source of the oil and chemical analysis.

Lead Base Paints: No lead based paints will be used on the new Central OWS. Any old equipment used will be tested for lead based paint. If any lead based paint is found it will be treated in accordance with applicable state and federal laws.

Groundwater: The tanks and piping on the existing OWS leaked in the past. The existing OWS is located on is a Resources Conservation and Recovery Act (RCRA) site (RSA-30 and 31) and has been identified on the RCRA part B permit as needing immediate corrective action. Although presently there are no leaks the probability of leaks occurring at this facility are high. The new equipment to be installed will contain secondary containment and leak detection to prevent contamination of the groundwater. After the new Central OWS is in operation, the old site will be remediated to standards established under RCRA. The potential to affect the groundwater will be decreased by the use of secondary containment and state-of-the-art leak alarms on all aboveground storage tanks and underground storage tanks at the new Central OWS.

Archaeological Resources: The project area has undergone Phase I archaeological survey (Alexander 1999, 1052 ha). The Alabama State Historic Preservation Officer (SHPO) has concurred with the findings of this report in letter AHC 99-0344 on January 26, 1999. No archaeological sites that are eligible for the National Register of Historic Places (NRHP) are located within the area. There should be no impact to archaeological resources.

- Emergency Discoveries: No Phase I archaeological survey, despite an intense effort and excellent research sampling strategy, precludes the possibility that an important archaeological site may be discovered during project construction. Federal cultural resource preservation statutes mandate that should such materials be discovered during construction, such materials should be identified and evaluated. The Redstone Arsenal Cultural Resources Manager will be notified immediately if such cultural resources are discovered.

Native American Graves Protection Act (NAGPRA): Should human remains be encountered during construction, NAGPRA specifies that work will cease immediately and the proper authorities be notified. The Redstone Arsenal Cultural Resources Manager will be notified immediately if any materials that are potentially human remains are discovered.

Historic Buildings: Cold War and World War II Architectural Historical Inventories have been conducted on all buildings on Redstone Arsenal. There are no buildings eligible for the NRHP in the project area. The Alabama SHPO concurred with these two inventories in letters May 18, 2001 and July 23, 2001.

Endangered Species: There are no federally listed species, or state listed species, in the area of this project. Further there is no suitable habitat for any of these species. The area has been disturbed since the 1940's. The secondary containment and leak detection equipment should provide adequate protection to any potential groundwater contamination, which might affect aquifers.

Wetlands: The closest wetlands to this site are about ½ mile to the south, and these wetlands drain into the Wheeler National Wildlife Refuge. The proposed oil/water

separator will be highly preferable to the old oil/water separator in the same area, as it will lessen the chance of pollutants getting into the Refuge.

Prime and Unique Farmlands: Prime farmlands are not regulated on military bases and installations per the Farmland Protection Policy Act (FPPA) Public Law 97-98 (December 22, 1981). One of the exemptions to the FPPA law is prime farmlands that are used for construction for National Defense purposes.

Other Natural Resources: The proposed site for the new oil/water separator is in a very disturbed area that has been used by the maintenance contractors for decades. No habitat exists on the site for native wildlife. There are no Exceptional Natural Areas impacted by activities at this site. The closest is Wheeler National Wildlife Refuge, which is over a half mile to the south.

The following subjects were considered as a part of this environmental assessment; however, the possibility of any environmental effects from this project in these areas did not apply or are so small no discussion was written for this assessment:
Asbestos
Radon
Noise
Sites Identified under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
Economic effects
Social effects

Alternatives Considered
An alternative considered was the modification of the existing Central OWS at building 5427. This alternative is not feasible due to the area the building is located on is a RCRA site (RSA-30 and 31) and has been identified on the RCRA part B permit as needing immediate corrective action. Leaks are known to have occurred in the past and cleanup of this site is necessary.

For the same reason as in the paragraph above the "no action" alternative was not discussed in detail because leaks are known to have occurred in the past and cleanup of this site is necessary to comply with environmental regulations.

Conclusion
This action has been evaluated and it has been determined that this action does not individually or cumulatively have a significant effect on the human environment. The operation and construction of a new Central OWS will provide better protection of the environment and allow for cleanup of a contaminated site (the old Central OWS location). A Finding of No Significant Impact (FONSI) will be prepared and published for public comment in local newspapers. If no valid environmental concerns exist after the 30-day comment period, the Redstone Arsenal Garrison Commander will endorse the FONSI.

List of persons consulted during the preparation of this EA that are not required to sign this EA.

Beverly Curry, Staff Archaeologist, Directorate of Environmental Management, AMSAM-RA-DEM-NR, 256-955-6971.

Daniel Hood, Directorate of Environmental Management, AMSAM-RA-DEM-IR, 256-876-2129

James Reid, Supervisor Installation Services Support Contractor (Chugach) Chemistry Laboratory, 256-876-4062

Susan Weber, Directorate of Environmental Management, AMSAM-RA-DEM-NR, 256-842-0019.

Carolene Wu, Cultural Resources Manager, Directorate of Environmental Management, AMSAM-RA-DEM-NR, 256-876-0211.

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Prepared by:

Michael J. Wassell
Installation Compliance Branch Team Leader
Directorate of Environmental Management
US Army Garrison – Redstone

Review by:

for Terry delaPaz
Chief, Installation Restoration Division
Directorate of Environmental Management
US Army Garrison – Redstone

Craig Northridge
Chief, Installation Compliance Division
Directorate of Environmental Management
US Army Garrison – Redstone

Daniel J. Dunn
Chief, Natural Resources Division
Directorate of Environmental Management
US Army Garrison – Redstone

Approved by:

Terry W. Hazle
Director, Directorate of Environmental Management
US Army Garrison – Redstone

Date